



Appl. No. 09/508,340
Amdt. Dated August 1, 2003
Reply to Office action of May 8, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled)

1 **Claim 2** (previously presented): An interferometric
2 coupler for controlling radiation proceeding therethrough,
3 the coupler comprising:

4 at least one input for conveying radiation incident to
5 the coupler,

6 at least one output for conveying radiation from the
7 coupler,

8 a first amplifying part (2) for amplifying the
9 incident radiation, and

10 a second transparent part (4) to guide radiation
11 previously amplified in the first part;

12 wherein the first and second parts are separated by a
13 curved interface (6).

1 **Claim 3** (previously presented): An interferometric
2 coupler for controlling radiation proceeding therethrough,
3 the coupler comprising:

4 at least one input for conveying radiation incident to

5 the coupler,

6 at least one output for conveying radiation from the
7 coupler,

8 a first amplifying part (2) for amplifying the
9 incident radiation, and

10 a second transparent part (4) to guide radiation
11 previously amplified in the first part;

12 wherein the first and second parts are separated by a
13 V-shaped interface (6).

1 **Claim 4**(previously presented): An interferometric
2 coupler for controlling radiation proceeding therethrough,
3 the coupler comprising:

4 at least one input for conveying radiation incident to
5 the coupler,

6 at least one output for conveying radiation from the
7 coupler,

8 a first amplifying part (2) for amplifying the
9 incident radiation, and

10 a second transparent part (4) to guide radiation
11 previously amplified in the first part;

12 wherein the first and second parts are separated by a
13 zigzag shaped interface (6).

1 **Claim 5** (previously presented): An interferometric
2 coupler for controlling radiation proceeding therethrough,
3 the coupler comprising:

4 at least one input for conveying radiation incident to
5 the coupler,

6 at least one output for conveying radiation from the
7 coupler,

8 a first amplifying part (2) for amplifying the
9 incident radiation, and

10 a second transparent part (4) to guide radiation
11 previously amplified in the first part;

12 wherein the first and second parts are separated by an
13 inclined interface (6) on a path of input (8) and output
14 (10) rays.

Claim 6 (canceled)

1 **Claim 7** (currently amended): The coupler according to
2 any of claims 2-5 [[1-6]], wherein a signal mode guide is
3 placed at the output.

Claims 8-11 (canceled)

1 **Claim 12** (currently amended): An optical amplifier

2 comprising:

3 an optical pre-amplifier, and

4 a coupler according to one of claims 2-5 ~~1 to 6~~ and ~~8-~~

5 ~~11~~.

1 **Claim 13** (currently amended): Process for amplifying
2 the power of a light source emitting radiation, consisting
3 of placing a coupler according to any of claims 2-5 ~~1 to 6~~
4 and ~~8-11~~, in the path of the said radiation.

1 **Claim 14** (currently amended): Process to compensate
2 for losses in an optical fiber consisting of placing a
3 coupler according to any one of claims 2-5 ~~1 to 6~~ and ~~8-11~~,
4 in the path of radiation passing through the optical fiber.

1 **Claim 15** (currently amended): Process for
2 amplification of signals multiplexed in wave length,
3 consisting of increasing the output power using a coupler
4 according to one of claims 2-5 ~~1 to 6~~ and ~~8-11~~.